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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-43. canceled.

45. (new) A film formed by using, as raw materials, a poly(carboxylic acid) polymer (A), which is a homopolymer or copolymer of at least one α, β-monoethylenically unsaturated carboxylic acid selected from the group consisting of acrylic acid, methacrylic acid, itaconic acid, maleic acid, fumaric acid and crotonic acid, or a mixture of at least two polymers thereof, and a polyvalent metal compound (B), wherein a peak ratio (A_{1560}/A_{1700}) represented by a ratio of the height A_{1560} of an absorption peak at a wave number of 1560 cm^{-1} to the height A_{1700} of an absorption peak at a wave number of 1700 cm^{-1} as determined on the basis of an infrared absorption spectrum of the film is at least 0.25.

46. (new) The film according to claim 45, wherein the film is a single-layer film formed from a mixture containing the poly(carboxylic acid) polymer (A) and the polyvalent metal compound (B) or a multi-layer film having a layer structure that a layer (a) formed from the poly(carboxylic acid) polymer (A) and a layer (b) formed from the polyvalent metal compound (B) adjoin.

47. (new) The film according to claim 46, wherein the single-layer film is obtained through a step of forming a single-layer coating film formed by applying a coating liquid containing the poly(carboxylic acid) polymer (A), the polyvalent metal compound (B) and a volatile base (C) on to a support and drying.

48. (new) The film according to claim 47, wherein the coating film is allowed to stand under an atmosphere having a relative humidity of at least 20% to form the polyvalent metal salt of a carboxylic acid by a reaction of the carboxyl groups of the poly(carboxylic acid) polymer (A) with the polyvalent metal compound (B), thereby controlling the peak ratio (A_{1560}/A_{1700}) to at least 0.25.

49. (new) The film according to claim 46, wherein the single-layer film contains the poly(carboxylic acid) polymer (A) and the polyvalent metal compound (B) in a proportion that the chemical equivalent of the polyvalent metal compound (B) to the carboxyl groups contained in the poly(carboxylic acid) polymer (A) amounts to at least 0.2.

50. (new) The film according to claim 46, wherein the multi-layer film is obtained through a step of forming a multi-layer coating film by alternately and adjoiningly forming, on a support, an at least one-layer coating film formed by applying a coating liquid containing the poly(carboxylic acid) polymer (A) and drying it and an at least one-layer coating film formed by applying a coating liquid containing the polyvalent metal compound (B) and drying it.

51. (new) The film according to claim 50, wherein the multi-layer coating film is allowed to stand under an atmosphere having a relative humidity of at least 20% to form the polyvalent metal salt of a carboxylic acid in the coating film formed by the poly(carboxylic acid) polymer (A) by a reaction of the carboxyl groups of the poly(carboxylic acid) polymer (A) with the polyvalent metal compound (B), thereby controlling the peak ratio (A_{1560}/A_{1700}) to at least 0.25.

52. (new) The film according to claim 46, wherein the multi-layer film has at least one layer structure unit that a layer (a) formed from the poly(carboxylic acid) polymer (A) and a layer (b) formed from the polyvalent metal compound (B) are alternately and adjoiningly arranged in order of (a)/(b), (b)/(a)/(b) or (a)/(b)/ (a).

53. (new) The film according to claim 46, wherein the multi-layer film is such that the chemical equivalent of the total (Bt) of the whole polyvalent metal compound (B) to the total (At) of carboxyl groups contained in the whole poly(carboxylic acid) polymer (A) based on all the layers (a) and (b) adjoining each other is at least 0.2.

54. (new) The film according to claim 45, wherein the poly(carboxylic acid) polymer (A) of a raw material exhibits an oxygen permeation coefficient of at most 1,000

cm^3 (STP) · μm /(m^2 · day · MPa) as measured in the form of a film formed by itself under dry conditions of a temperature of 30°C and a relative humidity of 0%.

55. (new) The film according to claim 45, wherein the polyvalent metal compound (B) of a raw material is a divalent metal compound.

56. (new) The film according to claim 45, which is soluble in either 1 N aqueous hydrochloric acid solution or 1 N aqueous sodium hydroxide solution, or both of them.

57. (new) The film according to claim 45, which has a thickness of 0.001 μm to 1 mm.

58. (new) The film according to claim 45, which is a gas barrier film exhibiting an oxygen permeation coefficient of at most 1,000 cm^3 (STP) · μm /(m^2 · day · MPa) as measured under high-humidity conditions of a temperature of 30°C and a relative humidity of 80%.

59. (new) A packaging material formed from the film according to claim 45.

60. (new) The packaging material according to claim 59, which is a bag, a sheet, a container or packaging material for heat sterilization.

61. (new) A laminate comprising the film according to claim 45 on a support.

62. (new) A laminate comprising a laminate film according to claim 45 which is coated with at least one side of a plastic sheet or a film.

63. (new) A packaging material formed from the laminate according to claim 61.

64. (new) The packaging material according to claim 63, which is a bag, a sheet, a container or a packaging material for heat sterilization.

65. (new) A precursor film (P) formed by using, as raw materials, a poly(carboxylic acid) polymer (A), which is a homopolymer or copolymer of at least one α, β-monoethylenically unsaturated carboxylic acid selected from the group consisting of acrylic acid, methacrylic acid, itaconic acid, maleic acid, fumaric acid and crotonic acid, or a mixture of at least two polymers thereof, and a polyvalent metal compound

(B), wherein a peak ratio (A_{1560}/A_{1700}) represented by a ratio of the height A_{1560} of an absorption peak at a wave number of 1560 cm^{-1} to the height A_{1700} of an absorption peak at a wave number of 1700 cm^{-1} as determined on the basis of an infrared absorption spectrum of the film is lower than 0.25.

66. (new) The precursor film (P) according to claim 65, wherein the precursor film (P) is a single-layer precursor film (P–2) formed from a mixture containing the poly(carboxylic acid) polymer (A) and the polyvalent metal compound (B) or a multi-layer precursor film (P-1) having a layer structure that a layer (a) formed from the poly(carboxylic acid) polymer (A) and a layer (b) formed from the polyvalent metal compound (B) adjoin.

67. (new) The precursor film (P) according to claim 66, wherein the single-layer precursor film (P-2) is a single-layer coating film formed by applying a coating liquid containing the poly(carboxylic acid) polymer (A), the polyvalent metal compound (B) and a volatile base (C) on to a support and drying it.

68. (new) The precursor film (P) according to claim 66, wherein the single-layer precursor film (P-2) contains the poly(carboxylic acid) polymer (A) and the polyvalent metal compound (B) in a proportion that the chemical equivalent of the polyvalent metal compound (B) to the carboxyl groups contained in the poly(carboxylic acid) polymer (A) amounts to at least 0.2.

69. (new) The precursor film (P) according to claim 66, wherein the multi-layer precursor film (P-1) is a multi-layer coating film obtained by alternately and adjoiningly forming, on a support, an at least one-layer coating film formed by applying a coating liquid containing the poly(carboxylic acid) polymer (A) and drying it and an at least one-layer coating film formed by applying a coating liquid containing the polyvalent metal compound (B) and drying it.

70. (new) The precursor film (P) according to claim 66, wherein the multi-layer precursor film (P-1) has at least one layer structure unit that a layer (a) formed from the poly(carboxylic acid) polymer (A) and a layer (b) formed from the polyvalent metal

compound (B) are alternately and adjoiningly arranged in order of (a)/(b), (b)/(a)/(b) or (a)/(b)/(a).

71. (new) The precursor film (P) according to claim 66, wherein the multi-layer precursor film (P-1) is such that the chemical equivalent of the total (Bt) of the whole polyvalent metal compound (B) to the total (At) of carboxyl groups contained in the whole poly(carboxylic acid) polymer (A) based on all the layers (a) and (b) adjoining each other is at least 0.2.

72. (new) The precursor film (P) according to claim 65, wherein the poly(carboxylic acid) polymer (A) of a raw material exhibits an oxygen permeation coefficient of at most 1,000 cm^3 (STP) · μm /(m^2 · day · MPa) as measured in the form of a film formed by itself under dry conditions of a temperature of 30°C and a relative humidity of 0%.

73. (new) The precursor film (P) according to claim 65, wherein the polyvalent metal compound (B) of a raw material is a divalent metal compound.

74. (new) The precursor film (P) according to claim 65, which has a thickness of 0.001 μm to 1 mm.

75. (new) The precursor film (P) according to claim 65, which is a precursor for obtaining a film having the peak ratio (A_{1560}/A_{1700}) of at least 0.25 by allowing the precursor to stand under an atmosphere having a relative humidity of at least 20% to form the polyvalent metal salt of a carboxylic acid by a reaction of the carboxyl groups of the poly(carboxylic acid) polymer (A) with the polyvalent metal compound (B).

76. (new) A packaging material formed from the precursor film (P) according to claim 65.

77. (new) The packaging material according to claim 76, which is a bag, sheet or container.

78. (new) A laminate obtained by arranging the precursor film (P) according to claim 65 a support.

79. (new) The laminate according to claim 78, which is a laminate film obtained by forming the precursor film (P) according to any one of claims 21 through 31 on at least one side of a plastic sheet or film by means of a coating method.

80. (new) A packaging material formed from the laminate according to claim 78.

81. (new) The packaging material according to claim 80, which is a bag, sheet or a container.

82. (new) A process for producing a precursor film (P) selected from the process (1) or (2);

the process (1) comprises forming a single–layer coating film by applying a coating liquid containing a poly(carboxylic acid) polymer (A), which is a homopolymer or copolymer of at least one α, β-monoethylenically unsaturated carboxylic acid selected from the group consisting of acrylic acid, methacrylic acid, itaconic acid, maleic acid, fumaric acid and crotonic acid, or a mixture of at least two polymers thereof, a polyvalent metal compound (B) and a volatile base (C) on to a support and drying it, thereby forming a film, which is a single-layer precursor film (P-2) formed from a mixture containing the poly(carboxylic acid) polymer (A) and the polyvalent metal compound (B), wherein a peak ratio (A_{1560}/A_{1700}) represented by a ratio of the height A_{1560} of an absorption peak at a wave number of 1560 cm^{-1} to the height A_{1700} of an absorption peak at a wave number of 1700 cm^{-1} as determined on the basis of an infrared absorption spectrum of the film is lower than 0.25, or

the process (2) comprises forming a multi-layer coating film having a layer structure that an at least one-layer coating film formed from the poly(carboxylic acid) polymer (A) and an at least one-layer coating film formed from the polyvalent metal compound (B) alternately adjoin by alternately applying a coating liquid containing the poly(carboxylic acid) polymer (A) and a coating liquid containing the polyvalent metal compound (B) and drying them, thereby forming a film, which is a multi-layer precursor film (P-1) having a layer structure that a layer (a) formed from the poly(carboxylic acid)

polymer (A) and a layer (b) formed from the polyvalent metal compound (B) adjoin, wherein the peak ratio (A_{1560}/A_{1700}) of the film is lower than 0.25.

83. (new) The process according to claim 82 for producing the precursor film (P), wherein the coating liquid containing the poly(carboxylic acid) polymer (A) and the coating liquid containing the polyvalent metal compound (B) are alternately applied and dried to form a film, which is a multi-layer precursor film (P-1) having at least one layer structure unit that a layer (a) formed from the poly(carboxylic acid) polymer (A) and a layer (B) formed from the polyvalent metal compound (B) are adjoiningly arranged in order of (a)/(b), (b)/(a)/(b) or (a)/(b)/(a).

84. (new) The process according to claim 82 for producing the precursor film (P), wherein the single-layer precursor film (P-2) contains the poly(carboxylic acid) polymer (A) and the polyvalent metal compound (B) in a proportion that the chemical equivalent of the polyvalent metal compound (B) to the carboxyl groups contained in the poly(carboxylic acid) polymer (A) amounts to at least 0.2.

85. (new) The process according to claim 82 for producing the precursor film (P), wherein the multi-layer precursor film (P-1) is such that the chemical equivalent of the total (Bt) of the whole polyvalent metal compound (B) to the total (At) of carboxyl groups contained in the whole poly(carboxylic acid) polymer (A) based on all the layers (a) and (b) adjoining each other is at least 0.2.

86. (new) A process for producing a film, which comprises allowing the precursor film (P) according to claim 64 to stand under an atmosphere having a relative humidity of at least 20% to form the polyvalent metal salt of a carboxylic acid by a reaction of the carboxyl groups of the poly(carboxylic acid) polymer (A) with the polyvalent metal compound (B), thereby obtaining a film having the peak ratio (A_{1560}/A_{1700}) of at least 0.25.

87. (new) The process according to claim 86 for producing a film, which is the processes (1) or (2);

the process (1)comprises,

(1-1) forming a single-layer coating film by applying a coating liquid containing the poly(carboxylic acid) polymer (A), which is a homopolymer or copolymer of at least one α, β-monoethylenically unsaturated carboxylic acid selected from the group consisting of acrylic acid, methacrylic acid, itaconic acid, maleic acid, fumaric acid and crotonic acid, or a mixture of at least two polymers thereof, the polyvalent metal compound (B) and the volatile base (C) on to a support and drying it, thereby forming the precursor film, which is a single-layer precursor film (P-2) formed from a mixture containing the poly(carboxylic acid) polymer (A) and the polyvalent metal compound (B), wherein a peak ratio (A_{1560}/A_{1700}) represented by a ratio of the height A_{1560} of an absorption peak at a wave number of 1560 cm^{-1} to the height A_{1700} of an absorption peak at a wave number of 1700 cm^{-1} as determined on the basis of an infrared absorption spectrum of said film being lower than 0.25,

(1-2) and then allowing the single-layer precursor film (P-2) to stand under the atmosphere having a relative humidity of at least 20% to form the polyvalent metal salt of a carboxylic acid by a reaction of the carboxyl groups of the poly(carboxylic acid) polymer (A) with the polyvalent metal compound (B), thereby forming a film having the peak ratio (A_{1560}/A_{1700}) of at least 0.25, or

the process (2) comprises,

(2-1) forming a multi-layer coating film having a layer structure that an at least one-layer coating film formed from the poly(carboxylic acid) polymer (A) and an at least one-layer coating film formed from the polyvalent metal compound (B) alternately adjoin by alternately applying a coating liquid containing the poly(carboxylic acid) polymer (A) and a coating liquid containing the polyvalent metal compound (B) and drying them, thereby forming the precursor film, which is a multi-layer precursor film (P-1) having a layer structure that a layer (a) formed from the poly(carboxylic acid) polymer (A) and a layer (b) formed from the polyvalent metal compound (B) adjoin, wherein a peak ratio (A_{1560}/A_{1700}) represented by a ratio of the height A_{1560} of an absorption peak at a wave number of 1560 cm^{-1} to the height A_{1700} of an absorption peak at a wave number of

1700 cm^{-1} as determined on the basis of an infrared absorption spectrum of said film being lower than 0.25,

(2-2) and then allowing the multi-layer precursor film (P-2) to stand under the atmosphere having a relative humidity of at least 20% to form the polyvalent metal salt of a carboxylic acid by a reaction of the carboxyl groups of the poly(carboxylic acid) polymer (A) with the polyvalent metal compound (B), thereby forming a film having the peak ratio (A_{1560}/A_{1700}) of at least 0.25.